

120mm Mortar In Light Forces

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There is no doubt that the Threat military services can deploy armor and motorized rifle divisions to most areas of the world. When this fact is combined with our present strategic lift limitations, it is clear that wherever we have to go fast, we also have to go light. A picture quickly unfolds, therefore, of our light infantry units being called on to fight tanks in intense conventional combat. Accordingly, our light infantry divisions need as many tank-killing systems as they can get. Any other conclusion would only encourage a reenactment of the 1950 Task Force Smith defeat by North Korean tanks.

Our light infantry forces are primarily organized, equipped, and trained to deploy rapidly to fight and defeat enemy light forces anywhere in the world. Many of the areas to which they may deploy are the same areas in which they can expect to encounter heavy opposing forces. Because of the unique missions of our light forces, they must have a lethal and transportable indirect fire capability to deal with both heavy and light opposing forces.

The tenets of our AirLand Battle doctrine challenge us to increase the effec-

tiveness of our combat support. Light infantry forces equipped with 120mm mortars could provide increased firepower through better munitions and rapid deployability. They could produce the destructive supporting firepower needed to engage a numerically superior armored threat successfully.

I propose, therefore, that we replace the 105mm howitzers presently found in the field artillery battalions of our air-

borne, air assault, and light infantry divisions with 120mm mortars as the direct support weapon system. This would not only significantly improve their firepower, including lethality, it would also increase their smoke and illumination capabilities. Of primary importance is the 120mm mortar's potential as a deadly antitank weapon when it uses precision-guided munitions (PGMs), the family of scatterable mines (FASCAM), and other

WEAPON COMPARISON

| ISSUE | 120mm MORTAR | 105mm HOWITZER |
|---|---|----------------|
| Maximum Rate of Fire | 18—3 min. (80% Increase) | 10—3 min. |
| Sustained Rate of Fire | 5—1 min. (65% Increase) | 3—1 min. |
| Weight | 700 lbs.—Avg. 66 tons—light div. reduction—1 | 3,150 lbs. |
| Size Configuration | + | — |
| Lethality | + | — |
| Illumination capability (Candlepower) | 850,000 | 600,000 |
| Smoke Capability | + | — |
| FASCAM Potential | Yes | No |
| Ammunition commonality | Yes | No |
| Simplify Logistics | Yes | No |
| Rifling | No | Yes |
| Weapon Cost | \$30,000 | \$126,000 |
| Reaction Time/Firing Support/Movement | + | — |
| Common Sighting Equipment/Mortar Family | Yes | Yes |
| Potential Delivery of Smart Munitions | Yes | No |
| Over-Hill Observation Potential | Yes | No |
| Crew Size | 4 | 7 |
| Direct-Fire Capability | No/Temporary* | Yes |
| Range (meters) | 8,000 | 11,000 |
| Bursting Radius | 60 meters | 35 meters |
| Width of Final Protective Fire (meters) | 360 (6 tubes) | 210 (6 tubes) |

*Turreted mortar technology available near-term.

Table 1

COMBAT POWER

CURRENT STRUCTURE

| UNIT | WEAPON | BN | GUNS | TOTAL | CREW | TOTAL |
|---------|--------|------|------|-------|------|-------|
| ABN | 105mm | 3 | 18 | 54 | 7 | 378 |
| AA | 105mm | 3 | 18 | 54 | 7 | 378 |
| Lt Inf | 105mm | 3 | 18 | 54 | 7 | 378 |
| Organic | 155mm | Btry | 8 | 8 | 10 | 80 |

PROPOSED STRUCTURE

Alternative A

| UNIT | WEAPON | BN | GUNS | TOTAL | CREW | TOTAL | PERSONNEL SAVINGS |
|--------|--------|---------|------|-------|------|-------|-------------------|
| ABN | 120mm | 3 | 18 | 54 | 5 | 270 | 378-270-108 |
| AA | 120mm | 3 | 18 | 54 | 5 | 270 | 378-270-108 |
| Lt Inf | 120mm | 3 | 18 | 54 | 5 | 270 | 378-270-108 |
| Lt Inf | 155mm | 2 Btrys | 8 | 16 | 10 | 160 | 108- 80- 28 |

Alternative B

| UNIT | WEAPON | BN | GUNS | TOTAL | CREW | TOTAL | PERSONNEL SAVINGS |
|--------|--------|---------|------|-------|------|-------|-------------------|
| ABN | 120mm | 3 | 18 | 54 | 4 | 216 | 378-216-162 |
| AA | 120mm | 3 | 18 | 54 | 4 | 216 | 378-216-162 |
| Lt Inf | 120mm | 3 | 18 | 54 | 4 | 216 | 378-216-162 |
| Lt Inf | 155mm | 3 Btrys | 8 | 24 | 10 | 240 | 162-160- 2 |

Table 2

antitank munitions.

Replacing the howitzers with 120mm mortars would also give a maneuver commander tremendous flexibility and would increase his fire support on the battlefield. In addition, this action would give him an all-important antiarmor, indirect-fire capability that would extend from the near battle area to the close-in portion of the deep battle area (see Table 1).

A battalion of 120mm mortars would be much lighter in weight and smaller in numbers than a battalion of 105mm howitzers. Air transportability and rapid deployment during tactical displacement would both be improved. The reduction in crew size (four people instead of seven) would be most significant, because the Army could then add two batteries of 155mm (M198) howitzers to the current single battery in a light division without

adding any personnel. This increased fire support would give the division more long-range combat power and even more effective supporting fires (see Table 2).

I do not propose any changes to a light division artillery's basic structure. The only changes that would be needed would involve the substitution of weapon systems, the shifting of some personnel, and the addition of two field artillery batteries.

The capabilities of a vastly superior 120mm mortar would increase our employment options significantly. We know that fire support is essential and that it must be flexible enough to supply supporting fires without interruption as the tactical situation changes. Future war-fighting preparedness demands that we consider this innovative opportunity for exploiting the potential of the highly mobile 120mm mortar.

Because indirect-fire engagements would depend on observer information, and because they would be within the range of 120mm mortars, the range differences between calibers would become insignificant. The challenges imposed by Threat forces demand this incremental and evolutionary approach to strengthening the indirect fire support to our light infantry forces. The 120mm mortar provides a practical solution and clearly points the way to a dramatic increase in the effectiveness of supporting fires.

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